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IS 9314 (2003): Cocoa Beans - Sampling [FAD 6: Stimulant Foods]

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भारतीय मानक

कोको बीज — नमूना लेना

(पहला पुनरीक्षण)

Indian Standard

COCOA BEANS — SAMPLING

(First Revision)

ICS 67.140.30

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

April 2003

Price Group 3

Stimulant Foods Sectional Committee, FAD 23

NATIONAL FOREWORD

This Indian Standard (First Revision) which is identical with ISO 2292 : 1973 'Cocoa beans — Sampling' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Stimulant Foods Sectional Committee and approval of the Food and Agriculture Division Council.

This standard was first published in 1979. In this revision, it is being aligned with the corresponding ISO Standard under dual numbering.

In the adopted standard certain terminology and conventions are not identical to those used in the Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'; and

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

CROSS REFERENCE

In this adopted standard, the following International Standard is referred to. Read in its respective place the following:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 2451 : 1973 Cocoa beans — Specification	IS 8865 : 2003/ISO 2451 : 1973 Cocoa beans — Specification (*first revision*)	Identical

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding of numerical values (*revised*)'. The number of significant places retained in the rounded off value, should be the same as that of the specified value in this standard.

Indian Standard
COCOA BEANS — SAMPLING
(First Revision)

0 INTRODUCTION

Correct sampling is a difficult operation which requires most careful attention. Emphasis cannot therefore be too strongly laid on the necessity of obtaining a properly representative sample of cocoa beans for examination.

The procedures given in this International Standard are recognized as good practice and it is strongly recommended that they be followed whenever practicable. It is recognized that it is difficult to lay down fixed rules to be followed in every case and that particular circumstances may render some modification of the method desirable.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies general conditions relating to sampling for the assessment of the quality of cocoa beans.

It relates to the sampling of cocoa beans packed in sacks as specified by ISO 2451[1], *Cocoa beans – Specification,* but it also gives the procedure to be followed for sampling cocoa beans in bulk.

2 DEFINITIONS

For the purpose of this International Standard, the following definitions apply :

2.1 consignment : A quantity of beans despatched or transported at one time and covered by a particular contract or shipping document.

2.2 lot : A quantity of merchandise assumed to be of uniform characteristics, taken from the consignment and permitting the quality of the merchandise to be assessed.

Lots should not exceed the sizes specified in 3.2 and each final sample should represent only one lot.

2.3 primary sample : A small quantity of cocoa beans taken from a single position in the lot.

2.4 bulk sample : A quantity of cocoa beans formed by combining and mixing the primary samples from different positions in the lot.

2.5 reduced sample : A quantity of cocoa beans obtained, if necessary, by the reduction of the bulk sample and from which is taken the final lot sample.

2.6 final lot sample (laboratory sample) : A small sample representative of the quality of the lot, obtained from the bulk sample or the reduced sample and intended for laboratory examination.

3 GENERAL

3.1 Sampling shall be carried out by sampling experts designated or approved by the parties concerned.

3.2 The complete consignment shall be examined in lots of not more than 25 tonnes on despatch and not more than 200 tonnes on arrival.

3.3 The samples shall be representative of the lots defined in 3.2 and, since the composition of the lots is usually to some extent heterogeneous, a bulk sample shall be taken from each lot by drawing a certain number of primary samples and carefully mixing them. The sample for laboratory examination shall be obtained by successive reductions of this bulk sample.

The sampling of beans which are sea-damaged, or otherwise damaged in transit, or in poor condition, as well as loose collected[2] or rejects, shall be carried out separately from the sampling of sound beans. These products shall not be mixed with sound material, but shall be assessed separately.

3.4 Special care is necessary to ensure that all sampling apparatus is clean, dry and free from foreign odours.

Sampling shall be carried out in such a way as to protect the samples of cocoa beans, the sampling instruments and the containers in which the samples are placed, from adventitious contamination such as rain, dust, etc.

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1) At present at the stage of draft.

2) This term is used to designate material which has leaked from its original container but which is not unduly contaminated.

Matter adhering to the outside of the sampling instrument shall be removed before the instrument is emptied of its contents.

4 APPARATUS

4.1 Sampling from bags

Sampling spear (open trier) specially designed for bags (see Figure 1 for an example).

4.2 Sampling from bulk

Hand scoops, triers or other appropriate apparatus for drawing small samples periodically from a flow of cocoa beans.

4.3 Mixing and dividing

Conical divider of the type shown in Figures 2 and 3 or, failing this, quartering irons or other suitable dividing apparatus.

5 METHOD OF SAMPLING

5.1 Primary samples

According to circumstances, primary samples should be taken from bulk products or from bags as indicated in 5.1.1 and 5.1.2.

A minimum of 300 beans should be taken per tonne or fraction of a tonne.

5.1.1 *Bags*

Primary samples should be taken from at least one-third of the bags in each lot, the bags being drawn at random throughout the lot. They should be taken by means of an open trier, at random, from the top part, the centre and the bottom part of bags in good condition.

5.1.2 *Bulk*

At least five primary samples should be taken per tonne or fraction of a tonne.

5.1.2.1 When sampling is carried out while the product is *in motion,* the primary samples should be taken through *the whole section of the flow of beans,* at intervals determined by the rate of flow.

5.1.2.2 When the sampling of beans in bulk takes place when the product is on a clean surface, the primary samples should be drawn from the upper part, the middle and the lower part of the heap after the beans in the lot have been carefully mixed.

5.2 Bulk sample

To obtain the bulk sample, combine the primary samples and mix them carefully.

5.3 Reduced sample – Final lot samples

Reduce the bulk sample by division, using the apparatus mentioned in 4.3, until a reduced sample is obtained of a size depending on the number of final lot samples necessary and on their mass.

The number of final lot samples to be made up for examination and arbitration should be specified in the contract or should otherwise be the subject of an agreement between buyer and seller; it may also be specified by an official agency concerned with checking.

A mass of 2 kg per final lot sample is usually sufficient.

A larger or smaller sample may be requested in certain cases, depending on the tests which have to be carried out.

6 PACKING AND MARKING OF FINAL LOT SAMPLES

6.1 Packing of samples

The containers for the samples and the closure systems provided for them should be perfectly clean and dry. They should be of a material not likely to affect the odour, taste or composition of the product; for example : fabric with a close weave, strong paper, board, metal, suitable plastics material, glass.

Samples for the determination of moisture content, or for any analysis likely to be affected by an alteration in the moisture content, should be packed in hermetically sealed water-tight containers. The containers should be completely filled and the closures should be sealed in such a way as to prevent any alteration of the initial moisture content.

Packages should carry the seal of each of the samplers designated or approved by the parties concerned.

6.2 Labels for samples

If paper labels are used for samples of cocoa beans, they should be of a suitable size and of a suitably high quality for the purpose. The eyelet hole in the label should be reinforced. The label should be sealed to the container holding the sample and should carry the seal of each of the samplers designated or approved by the parties concerned.

The following minimum information should be given on the labels :

1. Ship, vehicle or warehouse
2. From . . . . . .
   (in the case of transport by ship or vehicle)
3. To . . . . . .
4. Arrived . . . . . .
5. Quantity

6. Bulk/bags (number)
7. Goods
8. Identification mark or lot No.
9. No. and date of the bill of lading or of the contract
10. Date of sampling
11. Place and point of sampling
    (in the case of products in motion in particular, indicate whether sampling took place on entry to, or on leaving, the transit system)
12. Sampled by . . . . . .
    . . . . . .

The information on the label should be legible and indelible.

7 DESPATCH OF SAMPLES

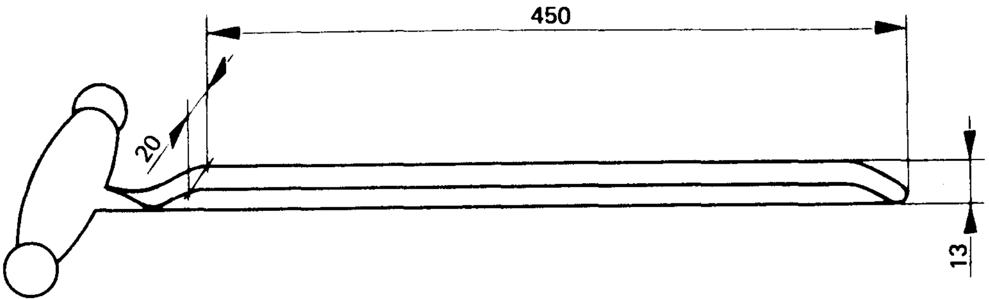
Final lot samples should be despatched immediately after the termination of sampling.

8 SAMPLING REPORT

If a sampling report is prepared, it should indicate the technique applied if it differs from that described in this International Standard, the method of reduction used and all the circumstances that may have influenced the sampling.

It should also indicate the state of the lot and any factor observed by the sampler which might affect its condition in the future (for example, infestation).

Dimensions in millimetres
(for guidance only)



Depth of groove : 10

FIGURE 1 — **Sampling spear (Open trier)**

Dimensions in millimetres
(for guidance only)

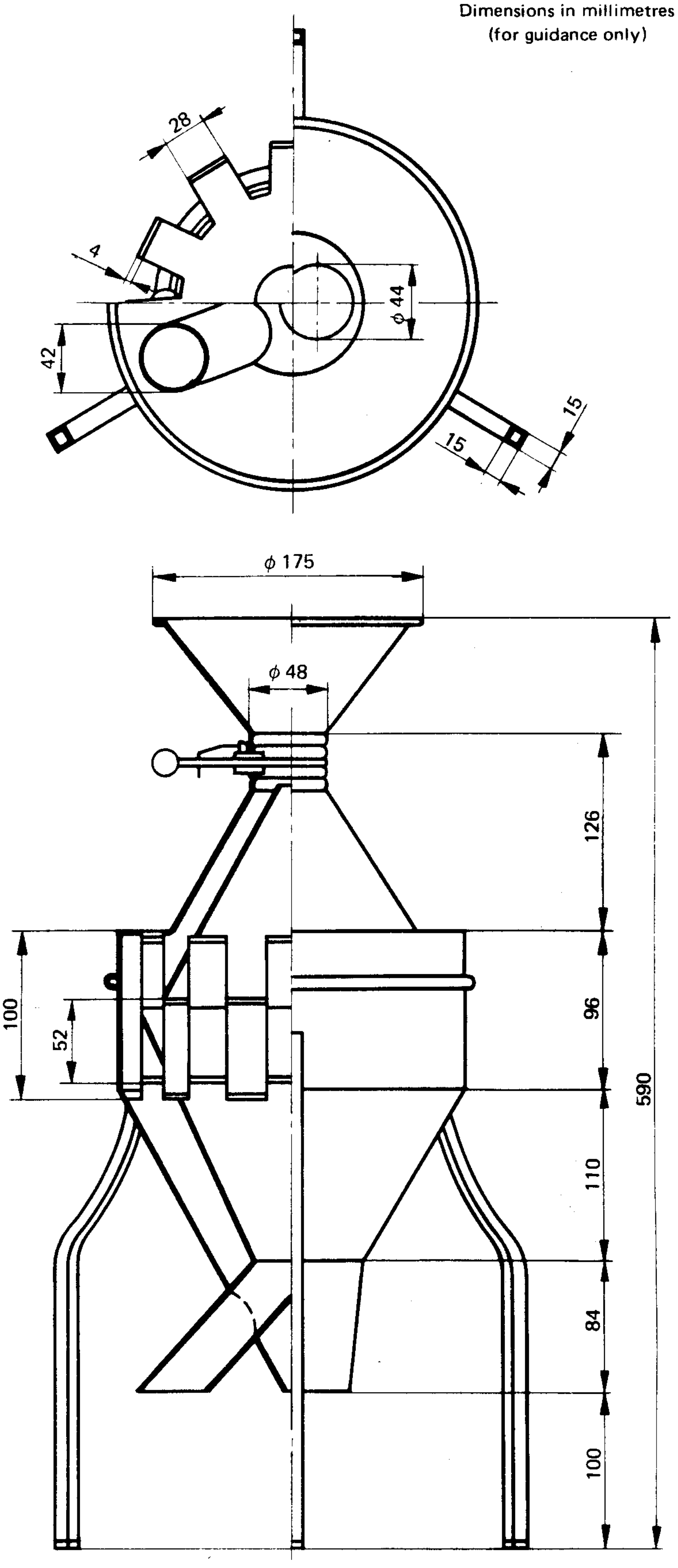


FIGURE 2 – **Conical divider**

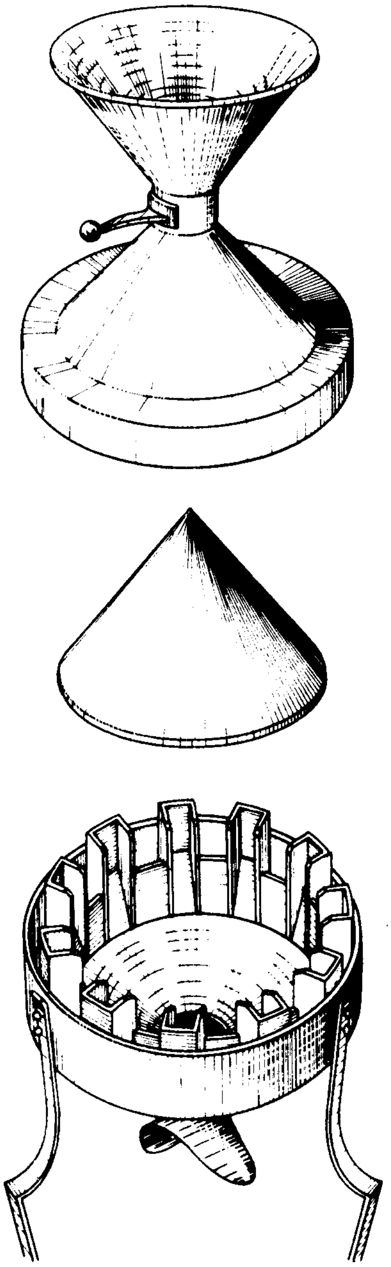


FIGURE 3 – **Parts of the conical divider**

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Amend No.	Date of Issue	Text Affected

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